

Measuring integrity of filter membrane, comprises creating volume of gas on filtrate side, increasing pressure on feed side to create pressure drop and measuring increase in pressure on filtrate side

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Abstract of NL1020491C

A volume of gas is created on the filtrate side (P) between the membrane (2) and outlet valve (V2), the pressure on the feed side (F) is increased to a value greater than that on the filtrate side in order to create a pressure drop and the increase in pressure on the filtrate side is measured and compared with a reference value. A method for determining the integrity of a membrane in a membrane filtration unit (1) comprises removing fluid from the feed side of the membrane via a liquid outlet (3) and supplying gas to the filtrate side via an inlet (6). A first valve (V1) is present in the feed pipe, a second valve is provided in the liquid outlet pipe (4) on the filtrate side and a third valve is provided in the gas pipe (6). A volume of gas is created on the filtrate side between the membrane and second valve, then the pressure on the feed side is increased to a value greater than the pressure on the filtrate side in order to create a pressure drop across the membrane, and after closing the first valve, a pressure transmitter (PT) on the filtrate side is used to measure the increase in pressure on this side and this increase is compared with a reference value. This comparison is then used to determine the membrane integrity. An independent claim is also included for a second method for determining the integrity of a membrane in a unit in which a feed pipe containing the first valve and an outlet are on the filtrate side and the liquid outlet pipe containing the second valve and the gas inlet containing the third valve are on the feed side, the volume of gas is created on the feed side between the membrane and second valve, pressure is increased on the filtrate side and the pressure transmitter is on the feed side.

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